## REMARKS

The following references were used alone or together to reject claims 1-14, 16, 17, 19-28, and 31-40:

Sugiyama et al. (U.S.6,002,403, hereinafter Sugiyama);

Marrin et al. (U.S. 5,808,613, hereinafter Marrin);

Matsuda (U.S. 6,346,956, hereinafter Matsuda);

Miller (U.S. 6,229,542, hereinafter Miller); and

Horvitz et al. (U.S. 5,880,733).

None of these references shows or suggests the inventions of independent claims 1, 20, 31 or 37. As such, all of the pending claims are patentable over these references taken alone or in any combination.

Independent claim 1 provides a method of generating a display. The method includes displaying a three-dimensional environment and at least two tasks in the environment. Each task is capable of including an image of at least two windows. Movement of one of the tasks is displayed in response to input from the user.

Independent claim 20 provides a computer-readable medium with components that are able to display a three-dimensional environment and at least two tasks, each containing images of at least two windows. A move task component moves one of the task images in response to input from a user.

Independent claim 31 provides a method of generating a display that includes displaying a non-focus task capable of including an image of at least two windows and displaying a stage area in a three-dimensional environment. The non-focus task is moved to the stage area based on input from the user and becomes a focus task such that the user can manipulate at least a portion of one window.

Independent claim 37 provides a computer-readable medium with components that display a three-dimensional

environment having a stage and at least one task containing images of at least two windows. A movement component moves the task toward the stage and a conversion component converts the task into a focus task when the task reaches the stage.

None of these claims is shown or suggested in the cited art because none of the cited art shows a task that has an image of at least two windows and that is shown as moving in the three-dimensional environment. In particular, Sugiyama does not show a task that includes these limitations.

In the Office Action, it was asserted that Sugiyama showed a task containing an image of at least two windows in FIGS. 5 and 7. In particular, A/V wall 112 and application wall 113 were asserted to be tasks.

However, walls 112 and 113 do not include images of at least two windows. Instead, each wall consists of displayed buttons used to activate applications. Since these walls do not show at least two windows, Sugiyama does not show or suggest the invention of claims 1, 20, 31, or 37.

By providing images of at least two windows in a task, the present invention allows users to recognize a task based on the windows displayed in the task. For instance, a task that involves writing a letter regarding a bill could include a window for a word-processing application and a window for a billing application. While looking at the three-dimensional environment, the user is able to find this task based on the fact that the task includes an image of both the word-processing window and the billing window. Further, the contents of the windows can help the user to select between two tasks that may use the same application. Thus, by looking at the content of the windows, the user is able to discern which task contains the data they want.

The invention of claims 1, 20, 31, and 37 also allow a user to move two windows with a single command. Thus, by issuing

a command to move a task, users are able to move all of the window images associated with that task. None of the cited art shows or suggests the ability to move more than one window by moving a task.

Since none of the cited references show or suggest the invention of claims 1, 20, 31 or 37, claims 1-41 are patentable over the cited art.

<u>CLAIM 11</u>

Claim 11 was rejected under 35 U.S.C. §103(a) as being obvious from Sugiyama in view of Marrin and Horvitz. Claim 11 depends from claim 1 and includes a limitation to removing a movement control based on a signal from a touch-sensitive input device that indicates that the user is not touching the input device.

None of these references shows or suggest removing a movement control based on input from a touch-sensitive device indicating that a user is not touching the input device. Although Horvitz does mention a touch sensitive pad, he does not indicate that a movement control should be removed from the display when the user is not touching the pad. Marrin and Sugiyama also fail to show or suggest removing a control when a user is not touching an input device.

Note that the invention of claim 11 allows users to quickly dismiss the virtual camera control simply by releasing an input device. This makes it easier for the user to reduce the clutter on the display and is especially helpful when the user is not navigating the camera through the environment.

Since none of the cited references show or suggest removing a control when a user is not touching an input device, their combination does not show or suggest the invention of claim 11.

## Claim 16

Claim 16 was rejected under 35 U.S.C. §102(e) as being anticipated by Sugiyama. Claim 16 depends from claim 1 and includes a further limitation wherein displaying movement of a task includes displaying movement of the task along a surface.

Sugiyama does not show or suggest such movement. In the Office Action it was asserted that FIGS. 5 and 7 showed such movement. However, these figures simply show two different display modes. In the mode of FIG. 5 the A/V wall is shown in front of the user. In the mode of FIG. 7, the application wall is shown in front of the user. These figures do not show movement along a surface. They simply indicate that the images on the various walls are switched when the user switches modes.

In claim 16, the task moves along a surface. Since such movement is not shown or suggested by Sugiyama, claim 16 is patentable over Sugiyama.

## Claim 19

Claim 19 was rejected under 35 U.S.C. §102(e) as being anticipated by Sugiyama. Claim 19 depends from claim 1 and includes a limitation to displaying a menu with a task movement selection and displaying movement of a task based on the user selecting the task from the menu.

Sugiyama does not show or suggest displaying a menu with a task movement selection. In the Office Action it was asserted that col. 9 lines 8-11 of Sugiyama showed such a menu. However, this section merely states that when the user clicks on an empty space above the center window, the view will change to show a Net Space 114 located above the center window. This section does not show or suggest a menu with a task movement selection.

Since Sugiyama does not show or suggest a menu with a task movement selection, it does not anticipate claim 19.

## Claim 33

Claim 33 was rejected under 35 U.S.C. §102(e) as being anticipated by Sugiyama. Claim 33 depends from claim 31 and includes a further limitation wherein a focus task is converted into a non-focus task by capturing an image of the focus task and replacing the focus task with the image.

Sugiyama does not show or suggest a step of capturing an image of a focus task or replacing a focus task with an image to form a non-focus task. In the Office Action, it was asserted that FIGS. 5 and 7 showed these steps. However, Sugiyama never discusses capturing an image of any of the walls shown in FIGS. 5 or 7 or of replacing the contents of one of the walls with an image. In fact, in Sugiyama, each wall contains active objects, not simply an image. This is evident from the fact that it is possible to double-click on a button on the left or right wall in Sugiyama. Because of this, it is clear that Sugiyama is not replacing the focus task with an image of the focus task to form a non-focus task. Instead, Sugiyama only suggests moving the contents of one wall to another wall.

Since Sugiyama does not show or suggest capturing an image of a focus task or replacing a focus task with its image, it does not show or suggest the invention of claim 33.

## Claim 34

Claim 34 was rejected under 35 U.S.C. §103(a) as being obvious from Sugiyama in view of Marrin. Claim 34 depends from claim 33 and includes a limitation wherein capturing an image includes moving a camera from a current position to a preferred position, rendering the image of the focus task from the preferred position, storing the image, and returning the camera to the current position.

Neither Sugiyama nor Marrin suggest these steps for capturing an image of a focus task. In the Office Action, it was

asserted that Marrin showed these steps at col. 3, lines 60-67, and col. 5, lines 34-38. However, the cited sections simply discuss moving through a three-dimensional environment based on input from a user. They do not discuss capturing an image of a focus task by storing a rendering of the focus task taken from a preferred position in the three-dimensional environment.

Note that the process of claim 34 ensures that a consistent view of the focus task will be used when capturing an image of the focus task before replacing the focus task with the image. This means that regardless of the virtual camera's position in the environment when the focus of the tasks changes, the captured image of the focus task will be taken from the preferred position. Neither Sugiyama nor Marrin show or suggest the desirability of this behavior or a mechanism to perform these steps.

As such, claim 34 is additionally patentable over Sugiyama and Marrin.

## Claim 35

Claim 35 was rejected under 35 U.S.C. §103(a) as being obvious from Sugiyama in view of Marrin. Claim 35 depends from claim 33 and includes a limitation wherein capturing an image of the focus task involves displaying an image of the environment from a current position while a virtual camera is moved to a preferred position, an image of a focus task is rendered and stored, and the virtual camera is returned to the current position.

Neither Sugiyama nor Marrin show or suggest maintaining an image of an environment while a virtual camera is moved to a preferred location to render and store an image of a focus task. As such, claim 35 is additionally patentable over Sugiyama and Marrin.

## Claim 36

Claim 36 was rejected under 35 U.S.C. §103(a) as being obvious from Sugiyama in view of Marrin. Claim 36 depends from claim 31 and includes a limitation to displaying a menu that includes a task selection for the non-focus task, selecting the task selection based on input from a user, and moving a virtual camera to bring the non-focus task into view based on the selection.

Neither Sugiyama nor Marrin show or suggest selecting an entry in a menu to bring a non-focus task into view. In the Office action, it was asserted that col. 9, lines 8-11 showed a step of displaying a menu, and that FIG. 10 showed a step of brining a non-focus task into view based on a selection made in a menu. However, the cited section of col. 9 does not show or suggest the display of a menu or the selection of an entry in a menu. Instead, it merely states that a Net Space 114 can be brought into view by clicking on the space above the walls shown in FIGS. 4A, 5, and 6A. Furthermore, FIG. 10 does not show a menu or a selection of a menu entry.

Since neither Sugiyama nor Marrin show or suggest displaying a non-focus task in response to a user selecting an entry in a menu, claim 36 is patentable over this combination of references.

### Claim 40

Claim 40 was rejected under 35 U.S.C. §103(a) as being obvious from Sugiyama in view of Miller and Marrin. Claim 40 depends from claim 37 and includes a limitation to generating an image of a focus task by moving a virtual camera to a preset location and rendering the appearance of the three-dimensional environment from that point of view. The image of the focus task then replaces the focus task.

None of the cited references show or suggest a step of moving a virtual camera to a present location to capture an image

of three-dimensional environment to generate an image of a focus task that will used in place of the focus task. In the Office Action, it was asserted that Sugiyama taught a step of generating such an image of a focus task at col. 6, lines 11-13. However, this section does not show or suggest capturing an image of a focus task so that the image can be used in place of the focus task.

As such, claim 40 is patentable over Sugiyama, Marrin and Miller.

## Conclusion

In light of the above remarks, claims 1-41 are patentable over the cited art. Reconsideration and allowance of the claims is respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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## MARKED-UP VERSION OF REPLACEMENT CLAIMS

37. (Amended)    A    computer-readable    medium    having    computer-executable components comprising:

> a environment display component capable of displaying a three-dimensional environment on a computer screen, the three-dimensional environment comprising at least one stage and at least one non-focus task comprising images of at least two windows;

> a movement component capable of displaying animated movement of a non-focus task toward a stage; and

> a conversion component capable of converting the non-focus task into a focus task when the non-focus task reaches the stage.

# Summary of Video Entitled CHIMP System
by Mark Mine of the University of North Carolina, 1996

Applicants have recently been made aware of a video produced by Mark Mine in 1996. This video shows a split screen with one portion of the screen containing a depiction of a user wearing a head mounted display and manipulating two input devices, one in each hand. In the other portion of the display, a three-dimensional environment which is presumably being displayed to the user through the head-mounted display is shown. The video depicts three-dimensional objects located in the three-dimensional environment and the user manipulating the position and orientation of those objects. Using a sweeping gesture with the left hand moving to the side of the user and then forward, a three-dimensional tool space is brought into view. Initially the tool space contains a flat panel with control buttons. The user then makes a flipping motion with their left hand and flips the tool space to expose the underside of the panel. The underside of the panel is populated with three-dimensional objects that are positioned within squares on the tool space plane. The user positions a blue selection dot on one of the three-dimensional objects, selects the object and drags the object into the three-dimensional space. The user then positions the three-dimensional object within the three-dimensional environment. The user then makes a motion to their left-hand side with their left hand. This results in an animation in which the tool space rotates out of view.